PAULA BRYANT

Autumn analysis 2019

by
Judith Garforth,
Citizen Science Officer
(Nature's Calendar)

Summary

Autumn 2018 was a largely warm season, especially July. The UK average date for each species and event in autumn 2018 was compared to the UK average date in the benchmark year of 2007.* There was no overall pattern to the dates in 2018; some species and events were earlier than the benchmark year, whereas others were later.

*The benchmark year was chosen because the mean monthly temperatures during autumn 2007 were similar to the 1961-90 averages.

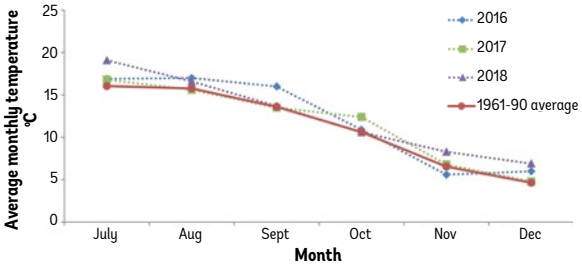
WOODLAND TRUST

Weather

Temperature

- Average monthly temperatures in July, August, November and December were above the Central England Temperature** 30-year average (1961-90).
- July was particularly hot, the second warmest since 1910. A high of 35.3°C was recorded in Kent.
- Average monthly temperatures in September and October were very similar to the 30-year average.

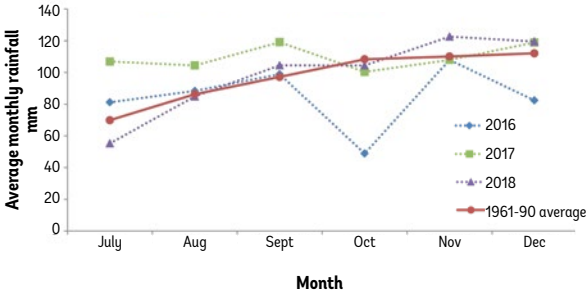
Central England Temperature 2016-18 compared with 1961-90 average



Rainfall

- July was a dry month; the rainfall total was 15mm less than the 30-year average.
- Rainfall totals in September, November and December were greater than the 30-year averages although there were considerable regional differences in rainfall. North West Scotland was particularly wet in September and similarly Devon in November.

UK rainfall 2016-18 compared with 1961-90 average



Sunshine

- July and October were sunny months. July had 72 more sunshine hours than the 30-year average, and October was the fifth sunniest October since 1929.

**Central England Temperature dataset is a record from a roughly triangular area of the UK, enclosed by Bristol, Lancashire and London.

JUDITH GARFORTH/WTML

Phenology

The UK average date for each species and event in autumn 2018 was compared to the UK average date in the benchmark year of 2007. There was no overall pattern to the dates in 2018; some species and events were earlier than the benchmark year, whereas others were later. This is in contrast to recent autumns such as 2017 when most species and events were recorded earlier than during the benchmark year and 2016 when most autumn species and events were recorded later than during the benchmark year.

Migratory birds

Summer departures

- Swifts were the first migratory birds to leave the UK as usual, with an average last recorded date of 8 August. House martins and swallows departed over a month later, in mid-September.
- Autumn 2018 continued a trend, seen over the last six years, of all average summer departure dates being earlier than the benchmark year.

Winter arrivals

- The average first recorded dates for fieldfares and redwings arriving in the UK were the 1 and 4 November; these dates are eight and nine days later than during the benchmark year.
- Average first recorded date during the benchmark year of 2007 is the earliest date year since our records began in 2002.

Trees and shrubs

Beech and silver birch are the most popular of the trees and shrubs for recording tinting. Perhaps this is because of their lovely autumn colours. Understandably, sessile oak is our least recorded tree, because although common in the north west of the UK in uplands, it is less widespread in the UK.

First autumn tinting

- First tinting of trees and shrubs started in September. Horse chestnut had the earliest average first tint date (2 September) as is becoming usual. This is most probably due to leaves changing colour early due to the leaf miner infestation. Leaf miner is now present across most of England and spreading into Wales.
- First tinting of elder (13 September) and rowan (17 September) followed horse chestnut.
- Ash and oak first tint was seen later in the season; the average first tint date for oak (2 October) was a month later than for horse chestnut.
- First tinting of ash and elder was a week earlier than the benchmark year, whereas first tinting of pedunculate oak was a week later than the benchmark year.

SUSAN TURNER

Full autumn tinting

- Generally, the order of full tinting follows that of first tinting. Average full tint date for horse chestnut was 30 October but for pedunculate oak was not until 4 November.
- Full tint for horse chestnut was eight days earlier than the benchmark year and for rowan was a week earlier than the benchmark year.

Leaf fall

- The average date of leaf fall was earlier than that of full autumn tinting, suggesting that trees started to lose their leaves before they reached full tint this autumn. The exception was horse chestnut; average full tint date was 30 September but average leaf fall date was 2 October.
- With the exception of rowan, average leaf fall date for all trees and shrubs was earlier than the benchmark year particularly elder (11 days), hawthorn and horse chestnut (both nine days).

Bare tree

- Ash was the earliest species to lose all of its leaves (4 November) and pedunculate oak was the last (29 November).
- Horse chestnut average bare tree date was six days earlier than the benchmark year whereas rowan bare tree date was five days later than the benchmark year.

Fruit

- The date of first ripe fruit varied from six days earlier (elder, bramble and holly) to three days later (sessile oak) than the benchmark year.
- Bramble was the earliest fruit to ripen (29 July) followed by elder (13 August). Holly berries were the last fruit to ripen (23 September).

- Bramble first ripe fruit is by far our most popular autumn species and event to record; we received almost 600 records. I imagine many of these first ripe bramble fruits were consumed by the recorders!
- Fruit score ranged from 2.83 for hazel (meagre crop) to 4.1 for ash (a good crop). In contrast, Ash had the lowest fruit score in 2017.

Fly agaric, ivy first flowering and lawn last cut

GEMMA MCKENZIE

- Fly agaric was recorded on average three days earlier than during the benchmark year whereas ivy first flowering was recorded five days later than during the benchmark year.
- The average date of the last lawn cut was 27 October, which is three days earlier than the during the benchmark year. Professor Tim Sparks has recently analysed all of the Nature's Calendar lawn last cut records for an article in British Wildlife. Find out more in our News in Brief letter also enclosed.

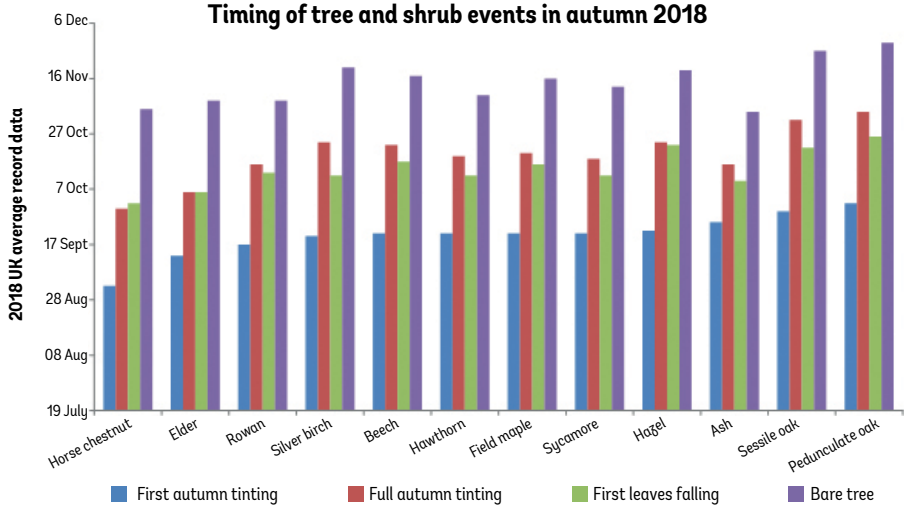
Your records

Thank you so much for your continued support, we really appreciate all the time and effort you put into recording. We will be celebrating 20 years of the project in 2020 and we know that many of you have been involved since the very start – an impressive achievement. Please keep sending us your records; they contribute to a powerful dataset that helps scientists to understand nature's response to changes in the environment. Some of the recent uses of your records by scientists are described in our News in Brief letter, but you can find out more at any time on our website:

naturescalendar.woodlandtrust.org.uk

Our online recorders can choose to add images to their records which we enjoy looking at each month. We sometimes use the photos to check species identification, but also love sharing them with you in a blog each month. The photos in this leaflet are all taken in autumn 2018 by our recorders.

Timing of tree and shrub events in autumn 2018



The Woodland Trust, Kempton Way, Grantham, Lincolnshire NG31 6LL

The Woodland Trust is a charity registered in England and Wales no. 294344 and in Scotland no. SC038885. A non-profit making company limited by guarantee. Registered in England no. 1982873. The Woodland Trust logo is a registered trademark. 13171 06/19